Quality Control

DQA:		Date:	14/0	<u>5/10</u> 5/	WORK ORDER NON-	-COI	NFOI	RMANCE / UI		ork Order up	odate only	DART
Work Order:	110	262	1/		DISPOSITION				AGAINST DE	PARTMENT,	/PROCESS	
i	D358	_	1) 95		Rework Scrap Use-as-is Suspected Unapproved			Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	l .	Water Jet d. Eng. Coor. e/Packaging Supplier	Engineering Quality Other
Root				Descr	iption of work order update	In	itial	Act	ion	Sign &		
Cause	Date	Step	Qty		or non-conformance	Chie	f Eng		iption	Date	Verification	QC Inspector
Design Doc/Data Equip/Tooling Handling/Pre Material	140325	<i>190</i>	`		39.043 was not		DAS 16 0-89	P3226-11 -Wake wor	535.043 by 53539-043 5113089 5113089	Jsc 14-04-15	DAS	DAS 16 9-89
Operator Offset/Setup Process				Show	or our and bestrant of be made on a whe shap /with inspect		હ્યુર જ્યાં રા ∙	- Assemble Di Cossembly of D3589-13 B Clearle cepent	<u> </u>		953	0620rz 14/01/21
Supplier Training Transport Unapproved .				RL F	Pant was NOT vertico			to MAKE \$358		Regular	Join Pore	
						FAU	LT CAT	TEGORY				j
Landing	Bending Centre No Cracks Crimp/Kir Cuffs Crushing Heat Trea Inspection Marks/Ch Turning S Wave/Tw	nk/Ripple nt n Strip in natter equence vist in Tub	/Wave Tube	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	General Bend BOM/Route Broken/Damage/Defect Burrs Contamination Countersink Cut Too Short Drawing Drill Holes Finish Fit/Function	H H H H H H H H H H H H H H H H H H H	Grain Hardwa Inspect Instruct Misalig Mislabe Misreae Off-set Out of	ion Incomplete/Ur tions Incomplete/U gned/off center eled d	Jnclear	Outside Dim Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/ Q(Ppo(A)	tolerance ci ssing Vrong	Pressure/Forced Set-up Temperature/Cure Weld Wrong Stock Pulled Other
H:/FORMS/Quality	Assurance\a	pproved Q	A/NCRW(O RevH								

Work Ord December-17-13				<u> </u>	110	1263*							Page 2	2
Revision ID:	D3589-041		·	Accept		*N900	<u>ი</u> 40	100)*	Setup	Start	171	S1*	
Item Name:	Latch Assemb	ly			i						Stop	*N	S2*	
Start Date:	12/17/13	Start Qty: 2.00	*2*		1	Cust Item I	D:							
Required Date: Reference:	12/17/13	Req'd Qty: 2.00	*2*	į		Customer:								
Approvals:	Process Pla	ın:	Date:	Tooling		Di	ate:	_		Run	Start	*N	R1*	
	QC:		Date:	SPC (Y/			ate:				Stop	*N	R2*	
Sequence ID/ Work Center II	D	Operation Description		Set U Run	p/ Hours	Tool ID	Tool #	Plan Code	Accep Qty	t Rej Qty		Reject Number	Insp. Stamp	
120		QC5- Inspect part comp.	leteness to step on W/O	0.00									DAS	
1 20 QC Quality Control		Мето		0.00					_ 2	14.	<u>04-1</u>	5	9 9-89	
130				0.00									FF	a
120 Small Fab		Мето		0.00	1				2				14-04	- 4
Small Fab		1- Assemble	e as per dwg											
140		QC5- Inspect part comp	lateness to sten on W/O	0.00	DAS 27 9-89									
140 QC		Memo	icteness to step on W/O	i	14/4/				9					

Quality Control

DQA:			Date:										TRACT
						WORK ORDER NON-	-CC	ONFO	RMANCE / UF				AEROSPACE
QA Closed:			Date:				···-		· · · · · · · · · · · · · · · · · · ·		ork Order up	date only	
Work Orde	sr.					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	
WOIK OIGE	-' -					Rework			Skid-tube	Crosstube	7	Water Jet	Engineering
Part N	lo.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality
	•					Use-as-is			noforming	Finishing	-	re/Packaging	Other
NCR N	lo.					Suspected Unapproved			Large Fab	Composite		Supplier	
Root					Desc	ription of work order update	긤	nitial	Acti	ion	Sign &		
Cause		Date	Step	Qty	Desci	or non-conformance	t t	ief Eng			Date	Verification	QC Inspector
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Doc/Data													
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Handling/Pre													
Material													
Operator													
Offset/Setup					ļ		İ						
Process													
Supplier							l						
Training	Щ												
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Landi		1				General		1		_	-	. —	٦
		Bending			\vdash	Bend	<u> </u>	4	Program	_	Outside Dim	<u> </u>	Pressure/Forced
		Centre No	ot Concer	ntric	<u> </u>	BOM/Route	⊢	Grain		-	Over/Under	—	Set-up
		Cracks	. /5: .	641	<u> </u>	Broken/Damage/Defect	\vdash	Hardwa			Part Incorre	<u> </u>	Temperature/Cure
		Crimp/Kir	nk/Ripple	:/Wave		Burrs	\vdash	4	ion Incomplete/Un	-	Part Lost/M	<u> </u>	Weld
		Cuffs				Countarial	\vdash	4	tions Incomplete/U	mclear	Part Moved Positioned V	_	Wrong Stock Pulled
	H	Crushing			\vdash	Countersink Cut Too Short	-	Mislab	gned/off center	-	Power Loss/		Other
	_	Heat Trea		Tubo	-	╡	-	Misrea		L	Trower ross/	Juige [Totalei
	-	Marks/Ch	•	rube		Drawing Drill Holes	-	Off-set					
	\vdash	Turning S			\vdash	Finish	\vdash	-	Calibration				
]	-	Wave/Tw				Fit/Function	\vdash	4	Sequence				
L	1	JANUAC, IN	· · · · · · · · · · · · · · · · · · ·	-		19.1 011001011	1	100001					

Work Orden December-17-13				*	110	1263*							Page 3
Item ID: Revision ID: Item Name:	D3589-041 Latch Assemb	ly		Accept		*N900	040	100)* s	Setup	Start Stop		S1* S2*
Start Date: Required Date: Reference:	12/17/13 12/17/13	Start Qty: 2.00 Req'd Qty: 2.00	*9*			Cust Item I Customer:	D:						
Approvals:	Process Pla	n:	Date:	Tooling:		Da	nte:		F	Run	Start	*N	R1*
	QC:		Date:	SPC (Y/	N):	Da	ate:				Stop	*N	R2*
Sequence ID/ Work Center II	D	Operation Description Identify as per dwg & Si	tock Location:	Set Ut Run H	-	Tool ID	Tool #	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp
150 Packaging Packaging		Memo	PPP 1 X PRP	138	101	· .			2x			14-	4-21
160 *1 AO* QC Quality Control		QC21- Final Inspection Memo	- Work Order Release	0.00					_ML3		_14	-04-	

D14.04.21

WORK ORDER NON-CONFORMANCE / UPDATE QA Closed: Date: Work Order update only	AEROSPACE
QA Closed: Date: Work Order update only	
DISPOSITION AGAINST DEPARTMENT/PROCESS Work Order:	
	neering
	Quality
Use-as-is Thermoforming Finishing Rec/Store/Packaging	Other
NCR No Suspected Unapproved Large Fab Composite Supplier	
Root Description of work order update Initial Action Sign &	
Detail Varieties 1 Oc	Inspector
	тэрсског
Design Doc/Data	
Equip/Tooling	
Handling/Pre	
Material	
Operator .	
Offset/Setup	
Process	
Supplier	
Training	
Transport	
Unapproved	
FAULT CATEGORY	
Landing Gear General	
	e/Forced
Centre Not Concentric BOM/Route Grain Over/Under tolerance Set-up	
	rature/Cure
Crimp/Kink/Ripple/Wave Burrs Inspection Incomplete/Unqualified Part Lost/Missing Weld	Shook Dullod
	Stock Pulled
Crushing Countersink Misaligned/off center Positioned Wrong Heat Treat Cut Too Short Mislabeled Power Loss/Surge Other	
Inspection Strip in Tube Drawing Misread	
Turning Sequence Finish Out of Calibration	
Wave/Twist in Tube Fit/Function Out of Sequence	

December-17-13 9:19:38 AM

Work Order ID:

110263

Parent Item:

D3589-041

Parent Item Name:

Latch Assembly

Start Date: 12/17/13

Required Date: 12/17/13

Start Qty: 2.00

Required Qty: 2.00

Comments:

IPP Rev:A new issue 08-06-05 DD verified by:ec IPP RevB: revise process as per coss DD 10.01.18 verified by:EC IPP REV:C 12.07.23 AS PER REV.C DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3589-1		Manufactured	No	i		100	Each	8.0000	1	2			14-07
Arm					l								<u> </u>
				Location	i	Loc Oty	$\underline{\mathbf{L}}$	oc Code					/
				WA002		8							
					631	6			_{2}				
				7776 885		1							
D3589-11		Manufactured	No	000	, 10	100	Each	4.0000	1	2			lila
Fwd Guide Plate		Manufactured		!									1473
				Location:	,	Loc Qty	L	oc Code					<u> 14-0.</u>
				WA002	!	4	_						/
				776	595	4			19	1			
D3589-13		Manufactured	No			100	Each	5.0000	2	4			1160
Lug										 		·····	<u> </u>
				Location		Loc Qty	L	oc Code	1.	o`			1
			~	WA002 [//]	~<1)	5				<u> </u>			
D2500 45				Ç 104	1589	5	ъ.		_ <u></u> /	<u> </u>		-	
D3589-15 Link		Manufactured	No	1		130	Each	6.0000	2	4	78	- 14-	04-16
Lank				T 43 1		I Ot		C. J.					
				Location	2:60	Loc Qty	_	oc Code		2			
					3162	6				2			
D3589-23		Manufactured	No	70-	1737	100	Each	24.0000	2	4			111 02
Arm Guide		Manufactureu		i									14-03
				Location	!	Loc Qty	L	oc Code					J.
				WA002	21147	24	_		£4	1200			-
					1477 1477	3							
					5462	20							
				915	541	1							

DQA:			Date:										DART				
		,			•	WORK ORDER NON-	WORK ORDER NON-CONFORMANCE / UPDATE Work Order update only Work Order update only										
QA Closed:			Date:							W	ork Order up	date only					
Work Orde	ır.					DISPOSITION			AGAINST	DE	PARTMENT	PROCESS					
110111101111	-					Rework	ı		Skid-tube Crosstube]	Water Jet	Engineering				
Part N	lo.					Scrap			Machining Small Fab	-	Pro	d. Eng. Coor.	Quality				
	•					Use-as-is			moforming Finishing		Rec/Stor	e/Packaging	Other				
NCR N	۱٥.					Suspected Unapproved			Large Fab Composite			Supplier					
Root					Desci	ription of work order update		nitial	Action		Sign &						
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector				
Design																	
Doc/Data																	
Equip/Tooling	\Box					,	ļ										
Handling/Pre																	
Material																	
Operator																	
Offset/Setup											·						
Process																	
Supplier																	
Training																	
Transport						÷											
Unapproved					L		<u> </u>	UT CA	TECODY		<u> </u>						
l a a di		· · · · · · · · · · · · · · · · · · ·					FAI	ULT CA	TEGORY								
Landi	_	Bending				General Bend] ₅₀₁₅₀ /1	Program		Outside Dim	ensions [Pressure/Forced -				
	_	Centre No	nt Concer	ntric	\vdash	BOM/Route		Grain	10grain	H	Over/Under	<u> </u>	Set-up				
	_	Cracks	or concer	itiic		Broken/Damage/Defect	\vdash	Hardwa	are	-	Part Incorred	⊢	Temperature/Cure				
	<u> </u>	Crimp/Kir	k/Rinnle	/Wave	-	Burrs	-	4	ion Incomplete/Unqualified	H	Part Lost/Mi	 	Weld				
	┝	Cuffs	ny mppic,	, , , ,	-	Contamination		1	tions Incomplete/Unclear	_	Part Moved	_	Wrong Stock Pulled				
		Crushing				Countersink	\vdash	4	gned/off center		Positioned V						
	┢	Heat Trea	t			Cut Too Short	一	Mislab			Power Loss/	_	Other				
	\vdash	Inspection		Tube		Drawing		Misrea				- L					
		Marks/Ch				Drill Holes	T	Off-set									
		Turning S	•			Finish		-1	Calibration								
		Wave/Tw				Fit/Function		Out of	Sequence								

December-17-13 9:19:38 AM

Work Order ID: Parent Item: Parent Item Name:	110263 D3589-041 Latch Assembly								Date: 12/17/13		Required Date: 12/17/13 Required Qty: 2.00
D3589-3	Laten Assembly	Manufactured	No		1 . :	30	Each	19.0000	2	4	
Arm Guide				Location		Loc Oty		Loc Code			14-03-2 12
				WA002		19		<u> zoc couc</u>			/ '
				105461		19			541		
D3589-7	•	Manufactured	No		1	00	Each	6.0000	1	2	14-03
Aft Guide Plate				, 1					4		14-03
				Location	!	Loc Oty		Loc Code			/
	•			WA002		6 5			700	_	
				76030		1				<u></u>	
D3589-9		Manufactured	No		j 1	00	Each	4.0000	1	2	111.00
Fwd Guide Plate											<u>14-03-</u>
				Location		Loc Qty		Loc Code			1
				WA002 [1/3089].) 	4			12		•
				96364	ļ	1 3					
MS20392-1C7		Purchased	No	1	. 1	.30	Each	41.0000	2	4	
Pin											FF 14-04-16
				Location		Loc Oty		Loc Code			
•				ST333		41				_	
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				1 <u>25646</u>	ı	2			<u>I</u>		
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MS24665-1010		D 1 1	No	m127304	1	.30	Each	289.0000	2		
COTTER PIN		Purchased	NU			.30	Eacii	289.0000		4	FF 14-04-16
· Au				Location		Loc Oty		Loc Code			, <u></u>
				ST323	•	289					
				108335		200				_	
				114405	1	89			4		
	v.			+ [/		

DQA:			Date:										TRACT
						WORK ORDER NON-	-CC	ONFO	RMANCE / UPDATE				AEROSPACE
QA Closed:			Date:				_			W	ork Order up	date only	
Work Orde	er:					DISPOSITION			AGAI	NST DE	PARTMENT	PROCESS	
	•					Rework			Skid-tube Crosst	ube		Water Jet	Engineering
Part N	lo.					Scrap			Machining Small		Pro	d. Eng. Coor.	Quality
	•					Use-as-is		Therr	noforming Finish	ning	Rec/Stor	e/Packaging	Other
NCR N	lo.					Suspected Unapproved]		Large Fab Compo	site		Supplier	
Root	I				Desci	I ription of work order update		nitial	Action		Sign &		<u> </u>
Cause		Date	Step	Qty		or non-conformance	ı	ief Eng	1		Date	Verification	QC Inspector
Design		•	,			-	T						
Doc/Data]				
Equip/Tooling													
Handling/Pre													
Material	,												
Operator											<u> </u>		
Offset/Setup													
Process													
Supplier									İ				
Training													
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Landi	_				_	General		1		<u></u>	1 .	_	.
		Bending			-	Bend	<u> </u>	1	Program	<u> </u>	Outside Dim	 	Pressure/Forced
		Centre No	ot Concer	ntric		BOM/Route	\vdash	Grain		\vdash	Over/Under		Set-up
		Cracks			<u> </u>	Broken/Damage/Defect	<u> </u>	Hardwa		<u> </u>	Part Incorre		Temperature/Cure
	Crimp/Kink/Ripple/Wave			_	Burrs	-	1 '	tion Incomplete/Unqualified	<u> </u>	Part Lost/Mi		Weld	
		Cuffs			-	Contamination	\vdash	4	tions Incomplete/Unclear	\vdash	Part Moved	L	Wrong Stock Pulled
	\vdash	Crushing			\vdash	Countersink	<u> </u>	-1	gned/off center	-	Positioned V		Tark
	-	Heat Trea		T . I	<u> </u>	Cut Too Short	\vdash	Mislab			Power Loss/	Surge	Other
	_	Inspection		Tube	<u> </u>	Drawing	-	Misrea					
	<u> </u>	Marks/Ch				Drill Holes	\vdash	Off-set			-		
	\vdash	Turning S			-	Finish	\vdash	-	Calibration		-		
1	1	Wave/Tw	ist in Tub	oe		Fit/Function	L	Jout of	Sequence				

Picklist Print

December-17-13 9:19:38 AM

Page 3

Work Order ID:

110263

Parent Item:

D3589-041

Parent Item Name:

Latch Assembly

NAS1149DN432J

Purchased

No

Start Date: 12/17/13

Required Date: 12/17/13

Start Qty: 2.00

Required Qty: 2.00

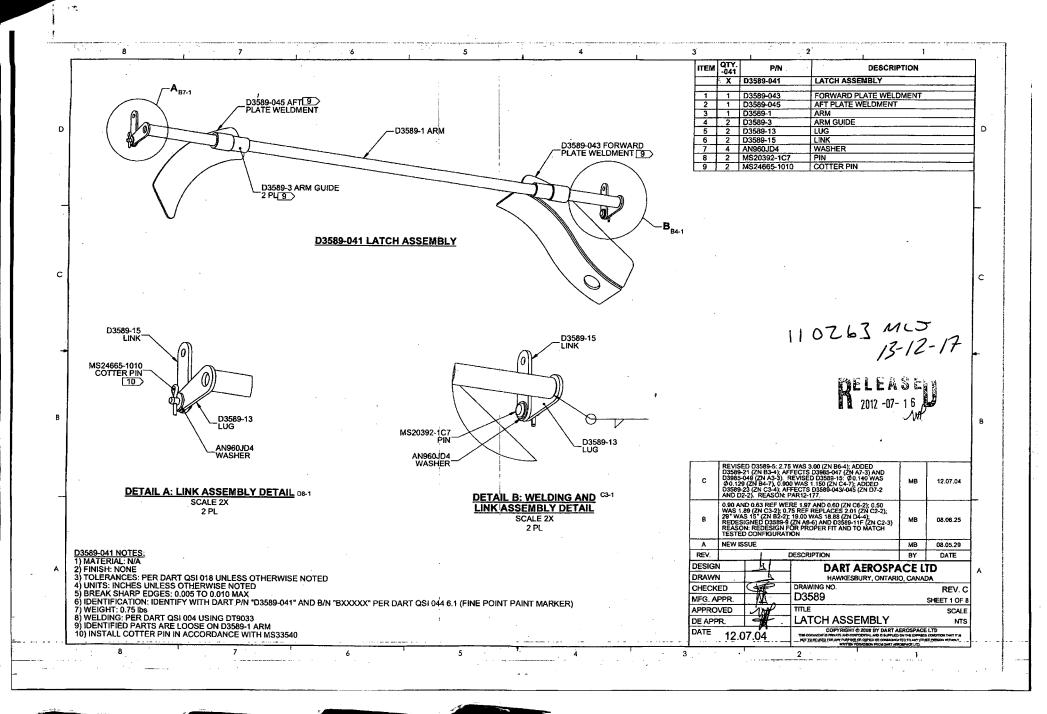
WASHER

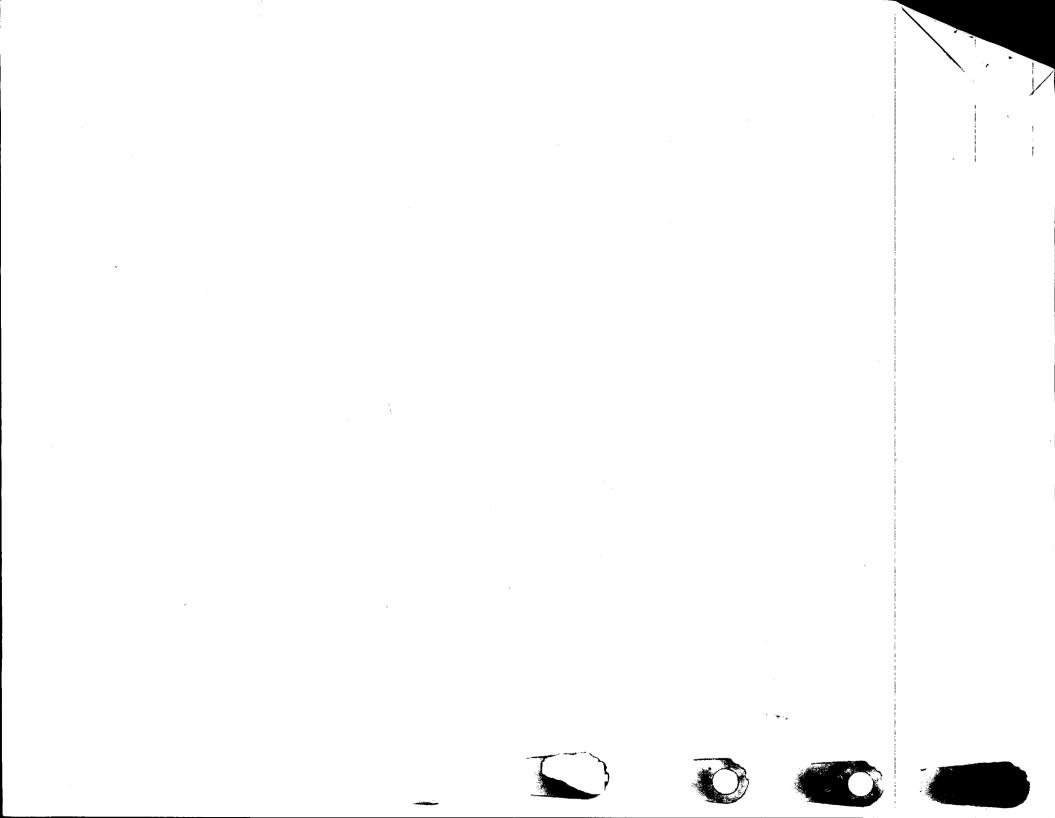
130 Each 118.0000

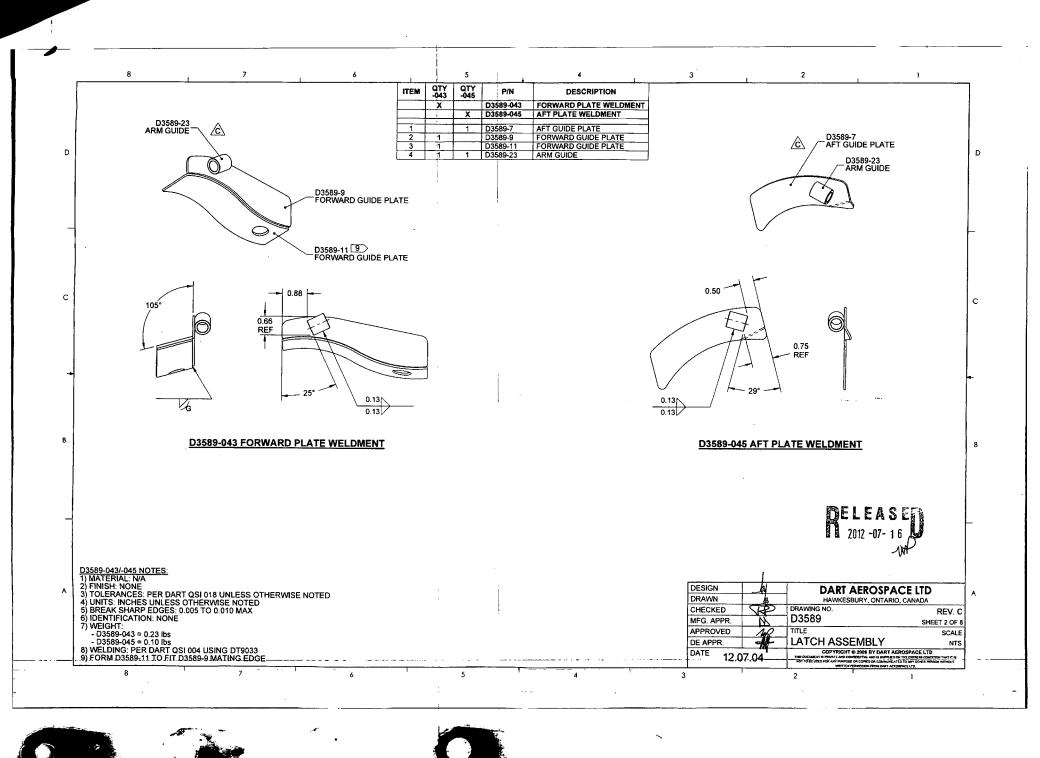
FF 14-04-16

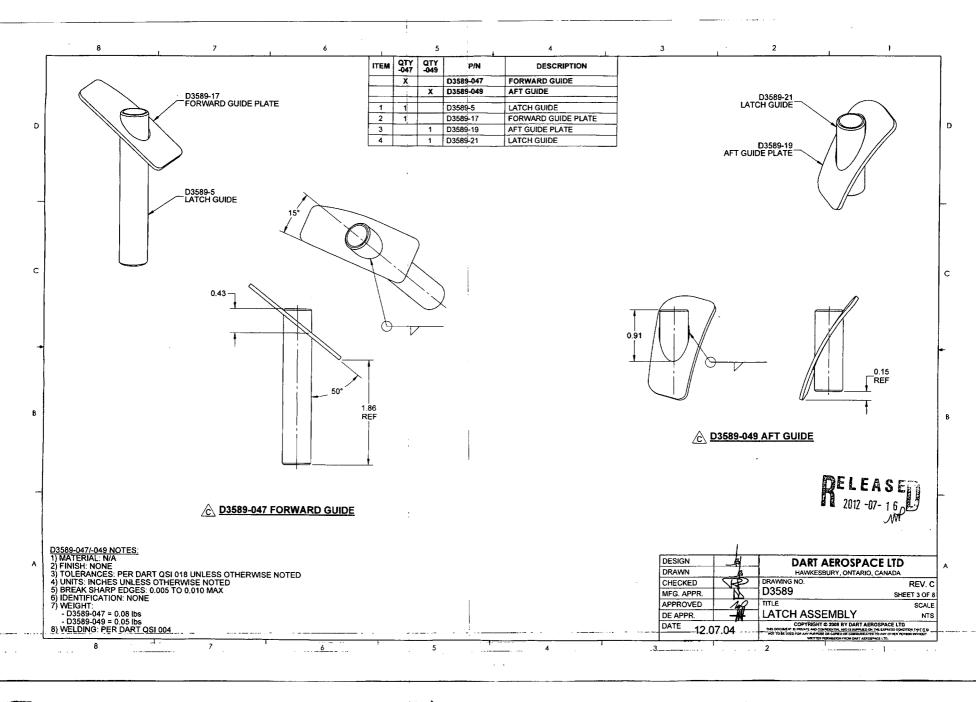
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ST293	118		
121444	6		
m125773	12		
m127306	100		

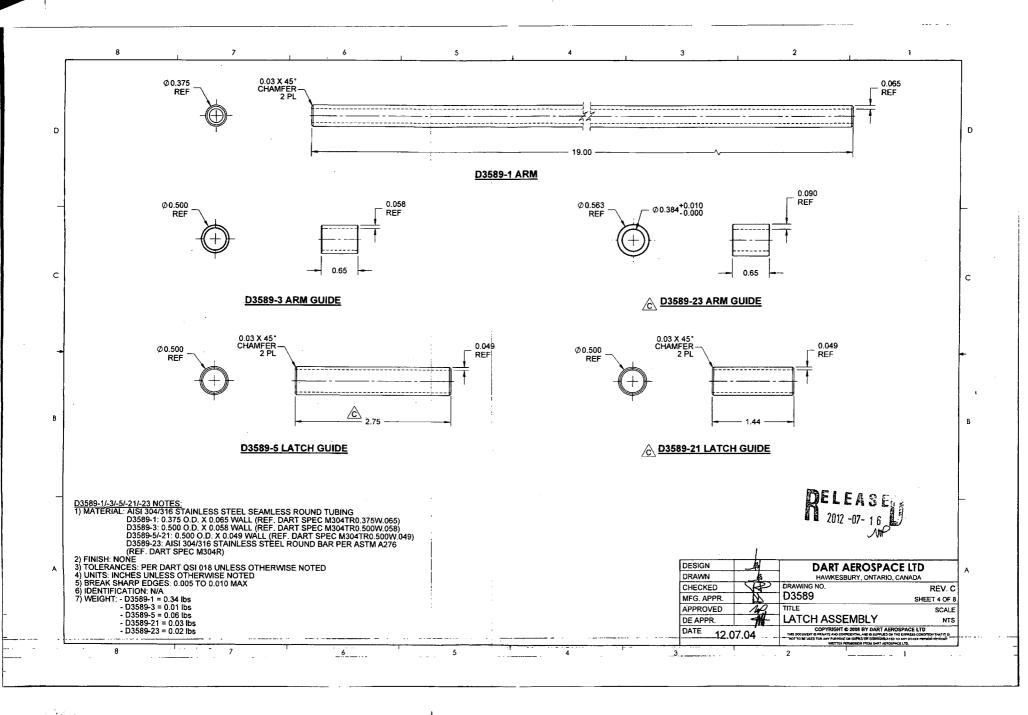
DQA:			Date:										TRAGE
						WORK ORDER NON-	-CC	NFO	RMANCE / UPDATE		1.0.1		AEROSPACE
QA Closed:		· · · · · · · · · · · · · · · · · · ·	Date:							W	ork Order up	date only	
Work Orde	ır.					DISPOSITION			AGAINST	DE	PARTMENT	/PROCESS	
Work Orac	-' -					Rework			Skid-tube Crosstube			Water Jet	Engineering
Part N	lo.					Scrap			Machining Small Fab	-	Pro	d. Eng. Coor.	Quality
, 2.0.	•					Use-as-is			moforming Finishing	Г	1	re/Packaging	Other
NCR N	lo.		-			Suspected Unapproved			Large Fab Composite			Supplier	
Root					Desci	ription of work order update	ı	nitial	Action		Sign &		
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
Design											<u>.</u>		
Doc/Data													
Equip/Tooling												•	
Handling/Pre									[
Material													
Operator	Щ										!		1
Offset/Setup													
Process													
Supplier	Щ				!								
Training													
Transport													
Unapproved	Ш		l				<u> </u>						<u> </u>
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Landi		l				General		le]		7,,,,,,,,
	<u> </u>	Bending			\vdash	Bend	<u> </u>	1 .	Program	\vdash	Outside Dim	<u> </u>	Pressure/Forced
	_	Centre No	ot Concer	ntric	_	BOM/Route	\vdash	Grain		\vdash	Over/Under	<u>-</u>	Set-up Temperature/Cure
	-	Cracks			<u> </u>	Broken/Damage/Defect	\vdash	Hardw		-	Part Incorre	<u> </u>	Weld
	L	Crimp/Kir	nk/Ripple	e/Wave	-	Burrs	⊢	4 .	tion Incomplete/Unqualified	\vdash	Part Lost/M Part Moved		—
	_	Cuffs			<u> </u>	Contamination	\vdash	4	tions Incomplete/Unclear	\vdash	-		Wrong Stock Pulled
	\vdash	Crushing			<u> </u>	Countersink	—	1	gned/off center	-	Positioned V Power Loss/	· · · ·	Other
Ì	_	Heat Trea		Tl	<u> </u>	Cut Too Short	-	Mislab		Ц	Trower ross/	onige [Totalei
	\vdash	Inspectio		Tube	-	Drawing	\vdash	Misrea					
	_	Marks/Cl			<u> </u>	Drill Holes	\vdash	Off-set					
1	_	Turning S	•		<u> </u>	Finish	\vdash	4	Calibration			***	
1	ì	Wave/Tw	ist in Tul	be		Fit/Function	L	Out of	Sequence				











R0.25 2 PL 1.13 REF 2.16 R4.90 R0.16 2 PL 2.24 2.74

0.45

D3589-7 AFT GUIDE PLATE MAKE FROM D3589-7F

2

D3589-7F AFT GUIDE PLATE FLAT PATTERN

8

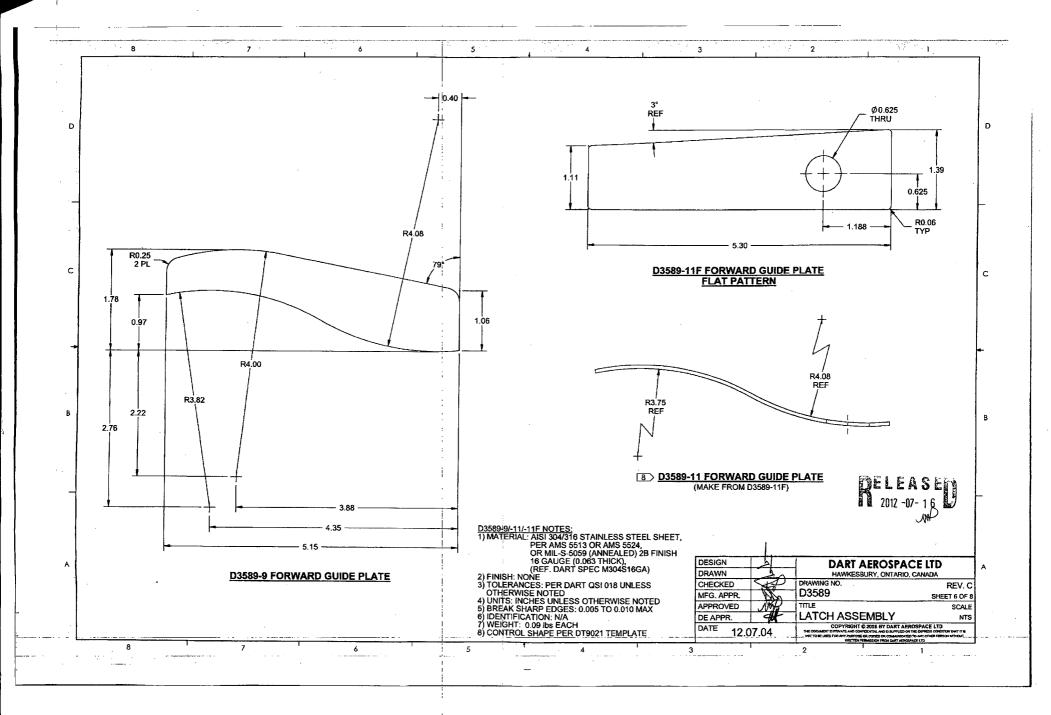
D3589-7/-7F NOTES:

1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, PER AMS 5513 OR AMS 5524, OR MIL-S-5059 (ANNEALED) 2B FINISH

16 GAUGE (0.063 THICK), (REF. DART SPEC M304S16GA)

16 GAUGE (0.063 THICK), (REF. DART SPEC M304S160 2) FINISH: NONE 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED 4) UNITS: INCHES UNLESS OTHERWISE NOTED 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX 6) IDENTIFICATION: N/A 7) WEIGHT: 0.09 lbs

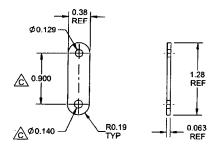
DESIGN		DART AEROSPAC	E LTD
DRAWN		HAWKESBURY, ONTARIO, C	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3589	SHEET 5 OF 8
APPROVED	J. Will	TITLE	SCALE
DE APPR.		LATCH ASSEMBLY	NTS
DATE 12.	07.04	COPYRIGHT © 2008 BY DART AERO THE COGLARM BETWATE AND COMPOSITION, MADE SUPPLIED ON THE	E EXPRESS CONDITION THAT IT IS



Ø0.129 THRU R0.18 0.935 1.36 REF Ø0.250 THRU 0.063 REF R0.25

5

D3589-13 LUG



D3589-15 LINK

D

D3589-13/-15 NOTES:	
1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, PER AMS 5513 OR AMS 55	24
OR MIL-S-5059 (ANNEALED) 28 FINISH	
16 GAUGE (0.063 THICK), (REF. DART SPEC M304S16GA)	
2) FINISH: NONE	

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: N/A
7) WEIGHT: 0.01 lbs EACH

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DESIGN DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWN DRAWING NO. CHECKED REV. C MFG. APPR. SHEET 7 OF 8 TITLE APPROVED SCALE LATCH ASSEMBLY

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